



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,916	06/27/2001	Donald R. Ricci	213202.00271	8554

27160 7590 05/08/2003

PATENT ADMINSTRATOR
KATTEN MUCHIN ZAVIS ROSENMAN
525 WEST MONROE STREET
SUITE 1600
CHICAGO, IL 60661-3693

EXAMINER

SNOW, BRUCE EDWARD

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,916

Applicant(s)

RICCI ET AL.

CR

Examiner

Bruce E Snow

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3738

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a porous surface defined by a plurality of interconnecting struts" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international

Art Unit: 3738

application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 32-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Alt et al (5,843,117).

Alt et al teaches a stent having a distal end and proximal end with a tubular wall disposed there between. Said wall having a plurality of interconnecting struts defining apertures (pores). Alt et al further teaches a fully deployed diameter *"from about 2.5 to about 5.0 mm"*; see column 16, lines 54-65. The fully deployed diameter is well known in the art to correspond to approximately the maximum yield point of the stent. (Applicant's specification teaches *"in conventional stents.. it is generally desirable to deploy the stent to a diameter which is as close as possible to, but does not exceed, the maximum yield point ."* See applicant's specification page 4, lines 25 et seq.)

Regarding applicant claiming, for example claim 33, *"a first unexpanded position," "second pre-expanded position," "third expanded position"*, this is merely functional language in which the stent of Alt et al is fully capable of performing. A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus satisfying the structural limitations of that claimed. The device disclosed by Alt et al fulfills the metes and bounds of the claim specified by the applicant and is fully capable of the performing the intended function.

Art Unit: 3738

Additionally, Alt et al teaches a "pre-expanded position" (termed partial expansion or pre-opening); see column 8, lines 17 et seq. and column 15, lines 39 et seq.

Regarding claim 34, Alt et al teaches 2.0 to 2.3 mm. See column 15, line 58.

Regarding the first unexpanded position having a diameter of less than or equal to about 1.1 mm, Alt et al teaches about 1.6 mm **as an example**. It is the Examiner position that "about 1.6 mm" meets the claim limitation of "about 1.0 mm". Further, 1.6 mm diameter is only an example is believed to correspond to the a fully expanded diameter of 5-6 mm. Inherently, a stent having a fully expanded diameter of about 2.5 mm would have a first unexpanded diameter of about 0.5 to 1.0 mm.

Regarding claim 41, "A partially expanded stent," the device of Alt et al inherently can be "partially expanded stent" and does have a pre-expanded position as described above.

Regarding claims 45-55, see column 4, lines 17-30; column 4, lines 52-67; column 16, lines 54 et seq. Regarding claims 49-53 claiming a "mandrel" or "die"; Alt et al teaches a "needle" interpreted as the same device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

Art Unit: 3738

be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al (5,843,117).

Alt et al teaches the stent as described above, however, is unclear as having a medicinal coating on the wall. Medicinal coatings on stents are well known in the art and would have been obvious to one having ordinary skill to have used any known coatings on the stent of Alt et al for improved acceptance by the body, etc.

Response to Amendment

Applicant's response has been fully considered. Regarding the objection to the drawings, any claimed feature must be shown in the drawings period. The claimed limitation, "*a porous surface defined by a plurality of interconnecting struts*" is not understood by one having ordinary skill in the art; the language "porous surface" is known in the art as simply having pores in the surface which do not extend all the way through the walls as compared with the struts which form openings all the way through the walls.

According to applicant's specification, page 4-5, it is well known in the art that the maximum intended expanded diameter of a stent is "*as close as possible, but does not exceed the maximum yield*" of the stent used. See page 4, lines 29-31. Applicant's invention, as claimed in claim 1, is that their stent can be fully expanded to the maximum yield point. **The underlying fact is that any**

Art Unit: 3738

prior art stent can be expanded to the diameter where it reaches the maximum yield point. The maximum yield point is a characteristic of the material used. Further, applicant uses the materials which are well known in the art. Applicant claimed "invention" is merely a functional limitation which does not patentably differentiate the stent.

Turning to the Alt et al reference, as noted in previous Office action, Alt et al teaches "*when fully deployed in the vessel at a target site by inflation of the expansion balloon, its outer diameter will typically lie in a range from about 2.5 to about 5.0 mm.*" Alt et al teaches the expanded stent diameter of "about 2.5mm" which according to applicant's teaching would correspond to almost its maximum yield point; surely when expanded to its maximum yield point would be within the claim range "of less than or equal to about 3.5 mm". It is further noted that the taught diameter of Alt et al would be considered a small diameter stent according to applicant's ranges.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

Art Unit: 3738


calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce E Snow whose telephone number is (703) 308-3255. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (703)308-2111. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

bes
May 5, 2003



BRUCE SNOW
PRIMARY EXAMINER